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The Under Representation Of Female Coaches In Field Hockey

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Abstract

The present study investigates the under representation of females as coaches in Field Hockey. Three separate research groups were used. Group One consisted of New Zealand Hockey Regional Development Managers, Group Two consisted of male and female senior level hockey players in Canterbury and Group Three consisted of male and female non hockey playing students from the University of Canterbury.

Data was collected from the three groups by way of questionnaire. All three groups' questionnaires were different. The Group One questionnaire required participants to list the characteristics they believed were associated with successful and unsuccessful coaching. They were also asked questions regarding same sex coaching for junior and senior teams. The Group Two questionnaire also asked participants to list the characteristics they believed were associated with successful and unsuccessful coaching. Additionally, group two participants were given the Rosenberg (1965) Self Esteem Scale and asked questions regarding likely involvement in coaching, factors thought to influence coaching participation, role models and perceived perception of coaches. The Group Three questionnaire required participants to rate 27 characteristics associated with coaching to the extent they perceived them as typically masculine or typically feminine.

The results indicated that numerically females are not under represented as coaches. Instead female under representation may be related to status. All results were discussed in the context of role models, sex based stereotypes, self esteem, and the likelihood of coaching. Implications of the results were also discussed as were the limitations of the present research and possibilities for future research.

General Overview

Sport and leisure are a big part of the New Zealand lifestyle. Although late night television constantly warns us against becoming a nation of obesity, the Hillary Commission quite proudly displays statistics showing just how active we are. Over the course of a year 2.2 million adults take part in sporting activities, 93% of young people are involved and 1,302,889 individuals are involved in organised sport. (www.hillarysport.org.nz, 2002)

To accommodate such activity, New Zealand has a very large range of sports to offer the public. There are approximately 90 national governing bodies offering different sports to New Zealand. Obviously the numbers affiliated with the national bodies vary between sports. Golf (128,860), Netball (120,440), and Soccer (105,023) are three of the most popular sports, attracting much larger numbers than sports such as Snooker (1585) and Trampolining (344). (www.hillarysport.org.nz, 2002)

The focus of the present research is field hockey. With 37,243 members, it is still very much a minority sport in New Zealand. The sport is in a unique situation, which makes it ideal for researching the under representation of females involved in coaching. It is one of the only sports in New Zealand where males and females participate in approximately equal numbers but at an international level the females are considerably outperforming their male counterparts. The New Zealand Men's hockey team had the distinction of winning the gold medal at the Olympics in 1976. Since then performance has declined. In 2000 they failed to reach the Sydney

Olympics and have consequently dropped their world ranking from tenth (world cup 1998) to sixteenth. On the other hand, the women's team, which had struggled in the past, qualifying for only two Olympic games prior to Sydney, have improved greatly in the last three years. To date they have won the Commonwealth Games Bronze Medal, gained entry into the Champions Trophy (Top 6 nations in the world), qualified for the Sydney Olympics and have continued their climb up the ranking ladder to fifth.

Despite the relative female dominance in the sport, female presence as the Head coach of the National team has been absent since 1992. Out of the 12 National League provincial teams for 1999 (6 male teams, 6 female teams) there was only one female coach. A similar pattern was seen in 2000. The twelve teams that year had 13 coaches (one women's team employed two coaches) of which 12 were men. The only female coach was as co-coach of a women's team. In 2001 the situation had not improved. The coaches involved with the 12 teams had grown to 15, however only two of these coaches were women. The same scenario is evident in club hockey in Canterbury. Analysis of the top three grades (Premier, 1st grade and 2nd grade) of both the male and female hockey competitions showed that in total there are 50 teams (25 male and 25 female teams). Of the 50 teams, only 12 are coached by females. Only one men's team is coached by a female but 14 female teams have a male coach. The under representation of females in coaching, so evident in NZ hockey is reflective of other sports world-wide. In 1996 the Australian Sports Commission conducted a survey of coaching. They found that 79% of high performance coaches across Australia were male. In addition, 89% of individuals who had achieved the highest level of coaching accreditation (Level 3) were male. Females made up only 29% of all who had achieved a level 1 coaching accreditation

and made up 25% of those with coaching director positions. (www.ausport.gov.au, 2002)

The overall aim of the present research is to investigate possible reasons for the under representation of females in coaching. Reviews of the literature surrounding leadership, role models, sex based stereotypes, self esteem and constraints on leisure and coaching have highlighted four major areas to consider: sex based stereotypes of leadership/coaching characteristics, self esteem, role models and perceived constraints on participation/coaching. The present research, will encompass all of the fore mentioned topics, Firstly the characteristics associated with coaching in field hockey, and the stereotypical sex typing of these characteristics will be identified. Secondly the factors underlying why male and female hockey players may take up coaching will be examined. Special attention will be given to the possible role of self esteem in this context.

The following sections details factors that can potentially inhibit both men and women from taking up coaching. As the focus of the present research is the under representation of females in coaching, these areas will be discussed in terms of the potential harm they can cause from a female perspective. There are four areas of discussion; role models, sex based stereotypes, self esteem and possible influences on the likelihood of coaching.

Role Models

The first area of discussion is that of role models or lack of them. One of the ways in which individuals learn is through observational learning or vicarious conditioning. This is a process by which individuals learn by watching the

behaviour of someone else. Bandura, (1977) in his Social Learning Theory states that we learn most of our social behaviour through observation of others. In other words, individuals model their own behaviour on someone else's actions and/or experiences that they have seen. In terms of the relationship between coaching and role models, it is possible that individuals involved in coaching or wanting to become involved have had particular coaches who have served as role models for them. These role models do not necessarily have to be of the same sex as the observer, however the question concerning this research is whether a lack of same sex role models is an inhibitory factor for women taking up coaching. In other words, for example, are women choosing not to coach because they are not seeing other women in coaching positions? Certainly with an under representation of females active in the coaching domain it becomes very hard for females (or males for that matter) to observe other females in coaching positions. Therefore it is unlikely that observational learning will take place.

As mentioned, this research proposes to look at whether a lack of same sex role models is an inhibitory factor for females entering into coaching and whether role models impact on sex based perceptions of coaching . In terms of the present study it is predicted, firstly that participants are more likely to have same sex role models, and secondly participants currently involved in coaching are more likely than those not involved to have male role models. Furthermore it is predicted that role models will have an impact on player perceptions of the characteristics associated with coaching. Specifically, participants with male role models will perceive successful characteristics of coaching as typically masculine, and perceive the unsuccessful characteristics associated with coaching as typically feminine. To date there is not a

lot of research that has been conducted in this area, however Sleaf (1998) has briefly touched upon this. He contends that a lack of female models has implications for both sexes. Sleaf (1998) states that whilst an under representation of female coaches reduces the opportunities for women to observe and model the behaviour of woman in leadership roles it also transmits information to both males and females that indicates women are not suitable for coaching roles.

Stereotypes

Sports is stereotypically perceived as a man's domain (Knoppers, 1988). With more men than women taking part in competitive sport (www.ausport.gov.au, 2002) this statement has some truth to it, however on closer inspection of the figures, the claim is not as valid as most believe. In Australia 35 percent of all males actively take part in competitive sport, whilst 21.5 percent of women do the same. Although there is a difference between the two figures, it is not overwhelming. These types of beliefs stem from persisting sex based stereotypes or stereotypical thought. The aim of the present research is to investigate such sex based stereotypes in relation to the under representation of females as coaches.

To date there is very little research that has been conducted in the area of sex based stereotypes and their relationships to coaching, rather research regarding stereotypes and women in positions of power has focused on leadership. There is however lot of cross over relevance from the research in female leadership to females in coaching, particularly in the areas of perceived stereotypical gender differences and the differences of subordinate perceptions of male and female leaders. Stereotypes are associations of certain characteristics of a group, the following sections discuss firstly gender stereotypes in relationship to leadership

and the linking relationship to coaching and secondly the stereotypically perceived effectiveness of leadership and coaching.

Gender Stereotypes

Gender is best described as socially predetermined relationships based on an individual's identifiable sex. (Eagly and Johannesen-Schmidt, 2001). Gender stereotypes, according to Rojahn and Willemsen (1994) are created by the differential sex distribution of social roles. In other words, gender stereotypes emerge due to the contrasting social role and status of males and females. Researchers agree that social roles and status are characteristically based on "agentic" and "communal" attributes. (Eagly and Johannesen-Schmidt, 2001) Agentic characteristics are qualities that are stereotypically perceived as masculine, for example; aggression, ambition, dominance, control, confidence and competition. Communal characteristics on the other hand, are qualities that are stereotypically perceived as feminine, for example kindness, affection, interpersonal sensitivity and sympathy. (Eagly and Johannesen-Schmidt, 2001). Higher status is attributed to males as it is perceived to be connected with agentic characteristics, for example competence and influence. Lower status on the other hand is attributed to females, based on the communal characteristic for example sympathy and softness.

Stereotypes affect both leadership and coaching by a process referred to as Gender role spill over. This is the "carry over into the workplace of gender based expectations for behaviour" (Eagly and Johnson, 1990, p 235). In other words, leadership/ coaching is affected by gender stereotypes, as typical expectations of male and female behaviour are carried into the work place.

Leadership, therefore is a high status position that is traditionally portrayed as a stereotypically masculine domain. (Carli and Eagly, 2001). The reason that leadership is associated with masculinity is that the traditional stereotype of femininity is considered a direct contrast to the perception of a leader as confident, directive and dominant . Hackman, Hills, Furniss and Paterson (1992) . Therefore in relation to agentic and communal attributes, the perception of leadership as explained by Hackman et al is coherent with agentic attributes for example confidence and dominance. Therefore it is expected that the characteristics of successful leadership will be based upon agentic norms as opposed to communal norms and therefore be considered stereotypically male. The same rationale is applicable to coaching and to a certain extent has been shown. In 1996 the Australian Sports commission conducted an informal survey regarding male and female coaches. The coaching behaviour of males was consistent with agentic norms, they were considered to be tougher, stronger and better able to motivate athletes than their female counterparts. Female coaches on the other hand, were perceived to display communal attributes, as a result they were considered softer and less task orientated. Male coaches, as will be discussed were perceived as better coaches and therefore more successful, based upon these stereotypical attributes. (www.ausport.gov.au)

The present study aims to investigate the stereotypical perception of successful coaching, in other words are the characteristics perceived as necessary to be a successful coach, stereotypically masculine. Hackman et al (1992) note leadership traits exhibited by women are judged as less effective than those exhibited by men, even when they are exactly the same. Therefore our stereotypical perception of

woman is so resolute that individuals tend to overlook woman as successful leaders even when certain traits and behaviours, which are indicative of successful leadership are evident. It is therefore predicted that in accordance with gender stereotypical norms, that the characteristics perceived as necessary to successful coaching will be perceived as typically masculine characteristics.

The Stereotypical Perception of Effectiveness

As discussed Leadership has traditionally been constructed as a masculine entity that presents both challenges and barriers for women. (Carli and Eagly, 2001). One of the major challenges for women is the evaluation of their leadership compared with men.

Given that leadership is stereotypically construed with masculine overtones, the issues of less favourable evaluation in comparison to male leaders is something that may prevent women not only climbing the corporate ladder but ultimately stop women from entering into leadership positions. (Eagly, Makhijani and Klonsky, 2001).

One of the most comprehensive studies of perceived leadership effectiveness, was conducted by Eagly, Makhijani and Klonsky (2001) They performed a meta-analysis on 61 previous studies investigating the relationship of gender and leader evaluation. They found overall there was a tendency to devalue female leaders much more than males did. The researchers explained that this phenomenon was due to the status connotations implicit in sex, males have more to lose, by supporting female leadership because women are assumed to have lower status. In support of this explanation, Carli (2001) makes the point that, "...women possess lower the levels of status and power than men do" (p,725) Ridgeway (2001) builds on this , stating

that, "...status beliefs ...link the higher status group with greater overall competence...with whatever specific skills are most valued...at the time." (p639)

Therefore men with a higher sex status than women, tend to evaluate male leaders more favourably than female leaders, in order to avoid internal conflict with the sex status belief. Interestingly women on the other hand showed no gender bias what so ever.

Secondly is it was discovered that women were evaluated less favourably than men, when they exhibited masculine styles of leadership, this was consistent with a factor often associated with gender bias; gender role congruency. This stipulates individuals act in a way congruent with gender role expectations. (Rojahn and Willemsen, 1994)

Therefore in other words female leaders exhibit gender role congruency when they embrace leadership styles that are comparatively feminine. On the other hand however females become incongruent with their gender roles when they embrace masculine leadership styles as was found in the Eagly et al (2001) meta analysis.

Eagly et al (2001) also found in their meta analysis, that women were evaluated less favourably in regards to positions typically occupied by males than they were for positions typically occupied by both sexes. This was consistent once again with the gender role congruence construct. In that women become incongruent with their gender roles when they enter into perceived masculine confines i.e. positions typically occupied by males. This is a particularly important finding to the present research, as coaching is a typically regarded as a male dominated position.

(Knoppers, 1988) It would therefore be expected that male leaders are perceived to be more effective than female leaders.

Studies into the perceived effectiveness and preferences of coaches have shown that male coaches are perceived as more effective than female coaches. Parkhouse and Williams (1988) investigated gender bias and female basketball players' perceptions of coaches. The participants were split into four groups, based on the gender of the hypothetical coach and team success. It was found that in all situations, athletes preferred the male coaches, except when female coaches were deemed successful and male coaches were deemed unsuccessful. Interestingly however in this situation, it was reported that forty percent of participants still preferred the unsuccessful male coach.

As briefly mentioned in 1996 the Australian Sports Commission conducted an informal survey aiming to measure both player preferences for male and female coaches and the coaching effectiveness. This was done by questioning the attitudes of sport participants towards coaches they have had in the past and their experiences with them. It was found that both male and female participants considered male coaches to be more effective than female coaches and therefore in accordance with the Parkhouse and Williams (1988) study, preferred to be coached by males. Female coaches on the other hand, were found to be softer, less task orientated and concentrated a lot more on the feelings of the participant. The study also looked to administrators and their attitudes toward male and female coaches. It was found that administrators of sports organisations believed that men make better coaches and as noted, their athletes (both male and female) prefer to be coached by males. Therefore the majority of these organisations put time and effort into deliberately recruiting male coaches. (www.ausport.gov.au, 2002)

Findings of the Australian Sports Commission's survey and the Parkhouse and

Williams (1988) show that there is a stereotypical perception attached to the role of coach. Players and administrators both consider coaching to be a masculine role.

Those concerned perceive males to be more effective and more appropriate coaches than equally qualified females. The present study therefore predicts that both male and female players, when given the opportunity to state whether they perceive a team performs better when it is coached by a male, a female or whether the sex of the coach has no impact on performance are more likely to perceive that male coached teams will perform better.

Self Esteem

Self-esteem refers to the positivity /negativity of an individual's attitude towards themselves (Solomon, 1996) self-esteem can be further defined in two varieties, trait self- esteem and state self esteem. The present research is primarily concerned with trait self esteem or inner self-esteem. According to Rosenberg (1986) trait self-esteem, is an individual's global judgement of their own usefulness. It is formed early on in childhood and is thought to remain constant throughout the life span. A popular measure for trait self esteem is the Rosenberg Self Esteem Scale (1965). Originally the scale was designed for the specific purpose of measuring self esteem in high school students. However since its conception the scale has been subject to widespread circulation and is now used for adults, adolescents and children alike. (Raymore, Godbey and Crawford, 1994). The Rosenberg Self Esteem Scale will be used in the present study to assess the self esteem levels of participants.

Individuals who are low in trait self esteem frequently exhibit different behaviour from those with a high self esteem. For example with high self esteem have a healthier view of the self. High self esteem is also related to more effective

functioning. (Pope, McHale and Craighead, 1988) Those with a low self-esteem on the other hand are often vulnerable to criticism or unfavourable opinion (Raymore et al, 1994). Coopersmith (1967) adds that those individuals with low self-esteem tend to remain passive instead of risking exposure to situations where they may be vulnerable to interpersonal intimidation or menace. Given that coaching is a position that often comes under scrutiny, from multiple sources (from players, other coaches, administrators and even spectators) the notion that individuals low in self-esteem tend to avoid situations of conflict or controversy could lead to the prediction that individuals low in self-esteem are less likely than those with high levels of self-esteem to become coaches. The present research investigates this prediction.

There is very little research investigating the link between entry into coaching and self-esteem levels. However numerous studies have shown a sex difference in self esteem levels. Females are significantly lower in self-esteem than males. (Richman, Clark and Brown, 1985; Pope et al, 1988; Rosenberg, 1989; Godbey, Raymore and Crawford, 1994). It is therefore predicted in the present study, that in accordance with the previous findings, that a sex difference in self esteem scores will be found. Specifically it is predicted that men will score higher than women on the Rosenberg self esteem scale.

Possible Influences on the Likelihood of Coaching.

The present study aims to investigate possible influences on the likelihood of Coaching. For this purpose researcher created a nine factor list from three sources; (1) Kay and Jackson's (1991) paper; "Leisure Despite Constraints." (2) The online Hillary Commission resource, "Getting Started in Coaching" (3) Information

gathered by the Australian Sports Commission. All three resources were used to create the nine factor list. Special consideration was made to include possible influencing factors that reduce and also possible factors that increase the likelihood an individual will participate in coaching. The nine factors thought to influence the likelihood of involvement in coaching were; (1) A desire to give something back to the sport. (2) A lack of relevant skills for coaching. (3) A desire to help other achieve. (4) A lack of time. (5) A desire for power (6) Limited opportunities. (7) A desire to stay involved in sport. (8) No interest. (9) A fear of failure.

Kay and Jackson's 1991 paper, "Leisure Despite Constraint" investigated the impact that leisure constraints can have on leisure participation. Their research is discussed in the constraints section of this paper. Of interest was the checklist of 19 main types of constraints. According to the Kay and Jackson (1991), this list was created from the findings of previous studies, and was modified by Kay and Jackson (1991) during piloting of the survey. The Checklist can be found in Appendix A.

The Hillary Commission was established in 1987, by an Act of Parliament. It was set up to develop sport and leisure activity, to not only get more people involved but to allow individuals to enjoy a more active lifestyle. The Hillary commission takes its name from, New Zealand icon, Sir Edmund Hillary. (www.hillarysport.org.nz, 2001)

The Hillary Commission has four major areas of focus; "Young people first", "Champions", "Push Play campaign" and "Coaching". It is the focus on coaching that is of the most relevance to this research. Part of the commissions focus on coaching is to attract new coaches. To do so a number of resources (available

online) have been created. One such resource “Getting Started in Coaching” contains a section on sport participation, featuring three lists compiled by the Hillary Commission entitled; “Why People Coach”, “Why People Play Sport” and “Why People Don’t Play Sport”. These lists were used to help compile the nine factors used in the questionnaire. A copy of the lists can be found in Appendix B.

The Australian Sport Commission plays a similar role for Australian sport that the Hillary Commission provides for New Zealand sport. The ASC administers and funds sport in Australia on behalf of the federal government developing elite sporting excellence and increasing community participation. The ASC through informal surveys have identified three major issues relating to coaching participation, ‘time’, ‘a lack of confidence’, ‘sex based stereotypes’.

Constraints on Participation

Five of the factors, that are thought to have a possible influence on the likelihood of coaching, are commonly reported in research as constraints on participation. The five constraints are; time, fear of failure, opportunity, no interest and skill.

Constraints on participation, in the area of coaching, is something which has not been extensively researched. Rather most of the research has focused on constraints of leisure participation and why people ultimately cease active participation. A constraint on leisure can be defined as, “...something that limits or inhibits an individuals ultimate participation in a leisure activity” (Raymore, Godbey, Crawford, 1994, p200). Coaching is seldom included under the banner of ‘leisure participation’, however a great deal of the research in the area of leisure

constraints has significant relevance to the coaching sphere. Kelly and Godbey (1992) suggest that there is no sense in thinking of participating in any activity without thinking of constraint at the same time. According to them, “all humans are constrained by both the physical and social environment as well as their own physiological constraints.” (p 355). Barriers, therefore confront all individuals, whether it be in a work, home or leisure environment (Kay and Jackson, 1991). Given that all individuals experience constraint in one way or another, it is not whether the constraint ceases participation of a leisure activity or as a coach, but rather that constraints in any environment limit an individuals desire and ability to participate.

Each of the five constraints; time, fear of failure, opportunity, no interest and skill will be discussed separately. As noted they are all factors that have been recognised as reasons why individuals choose not to participate in sport as coaches (www.hillarysport.org.nz , 2002) and therefore affect both males and females alike. However as the focus of the present research is the under representation of females in coaching, the five constraints will be discussed in relation to female coaching aspirations.

Time

A lack of time is a widely spread constraint evident in previous research. (Kay and Jackson, 1994; Raymond, Godbey and Crawford 1994; Kelly and Godbey, 1994). Despite prevalent acknowledgements regarding time as a constraint on participation, it has become a rather controversial barrier. Kelly and Godbey (1994) explain, that although research has shown a ‘lack of time’ as a common response when individuals are asked why they do not participate in leisure activity,

they suggest that it may simply indicate the individual is not actually interested in the activity. In other words, interest constitutes making time for activity. If an individual has a serious interest in an activity, such as coaching, a lack of time would not be a prevalent factor, time would be set aside to accommodate and pursue the interest. Another issue surrounding time is that of the status connotations implicit in leisure activities. In reference to the present research, coaching is a revered position. Coaches are seen as having a 'special' quality to their character (Wilkerson, 1996). As the perceived traits of a coach are loaded with high status connotations, individuals may feel pressured to say they may like to be involved but do not have the time to do so.

Despite the caution surrounding time as a legitimate constraint on participation, Kay and Jackson (1994) found some interesting sex differences in their research looking at 'leisure despite constraint.' They looked at leisure constraint over a wide range of social groups and neighbourhoods. For analysis purposes the researchers divided the neighbourhoods into five area categories based upon social status. They used an interviewer-administrated questionnaire, which included both prompted and unprompted questions to identify the constraints individuals experience to leisure participation. Interviewees were shown a list of nineteen 'main' types of constraint that Kay and Jackson had identified from previous research. They were asked whether any of the types of constraints firstly, stopped them from participating in leisure activity and secondly which ones affected them the most. Finally participants were asked to put their answers in rank order. From this point the interviewers asked more detailed questions based upon the top two ranking constraints.

In terms of results, time was considered the number one constraint for the highest social status group of participants and the number two constraint for the four other social status groups. With regard to the present research the most important finding was a sex difference in a lack of time. Women were more likely to find a lack of time a constraint on participation than men. This is consistent with information reported by the Australian Sports Commission, who note many women do not have the time to coach, as they have a career outside of sport and also have a family. (www.ausport.gov.au, 2002) Family responsibilities have been well documented in relation to a lack of time in both coaching and constraints on participation literature (Knoppers, 1988; Samdahl and Jekubovich, 1997). It is predicted that the present research will replicate the finding of the Kay and Jackson (1991) study, showing that women are more likely to be affected by a lack of time than men are.

Fear of Failure.

Horner (1972) argues that it is not a fear of failure that deters women from seeking positions of leadership, rather a motive to avoid success. Horner states that a motive to avoid success can be defined as, “a disposition to become anxious about achieving success because they women expect negative consequences... such as social rejection and or feelings of being unfeminine” (pg159). The motive to avoid success exists because the desire to remain feminine and achievements which reflect a degree of intellectual competence or leadership, are mutually exclusive goals. This is because the dominant stereotypes dictate that competition, and leadership are consistent with masculinity and inconsistent with femininity (Horner, 1972).

Knoppers (1988) suggests that coaching like the industrial/corporate world is based upon male domination and sex segregation. Therefore in accordance with Horner's (1972) arguments, females may experience the motive to avoid success in coaching, because it is a masculine entity and therefore inconsistent with the stereotypical feminine image. It is predicted for the present study, that females are more likely than males to experience a fear of failure. It is also predicted that a fear of failure is more likely to be experienced by participants that are currently not coaching as compared with those that are presently involved in coaching.

Limited Opportunities.

Within the industrial and educational spheres there is a concept known as the "glass ceiling". The glass ceiling is an invisible barrier that allows women to advance to a certain level but ultimately denies women access to the top positions. An example was of the devastating effects of the glass ceiling concept was published in catalyst (2001) looking at Fortune 500 companies, they found that women held only 3% of the highest paid officer roles and only 0.4% of CEO positions (Carli and Eagly, 2001).

The same scenario is evident in coaching. Acosta and Carpenter (1992) documented a decline over twenty years (1972-1992) in the proportion of women coaches (of female teams) at the American collegiate level from over 90% to below 50%. Like the Industrial and educational realms, under representation of female coaches is often put down to two reasons; a lack of females applying for job openings and the pipeline effect. (Wilkerson, 1996) The pipeline effect is term used to describe a lack of suitably qualified females (Carli and Eagly, 2001) Acosta and Carpenter (1992) refute the idea that females are either unqualified or simply not applying for

coaching positions, rather they stress that the under representation of female coaches identifies the success of the 'old boys' network and the ultimate failure of the 'old girls' network. Stangl and Kane (1991), term the success of the old boys network as, "a consequence of homologous reproduction" (p.47). In other words it is typically males who are in the position to decide who coaches, and there is a tendency to replicate themselves based upon physical characteristics. A similar pattern in the corporate world, was noted by Kanter (1977), when it was recognised that females frequently found their abilities shadowed by their gender. In order for females to gain a leadership position remarkable skills are often needed to counteract their gender. In both the sporting and business worlds, females are often disqualified as a result of gender, regardless of the coaching skills and leadership abilities they possess. Supporting this claim is the study of Parkhouse and Williams (1986). They investigated athlete's attitudes towards hypothetical male and female coaches. It was found that both male and female athletes favoured male coaches even when female coaches were described as superior coaches to males in terms of both higher honours and coaching records. In accordance with the Parkhouse and Williams (1986) study, it is predicted the present study will reveal that females are more likely to perceive limited opportunities as an influence on the likelihood of involvement in coaching.

No Interest

A lack of interest, as has already been discussed, is a constraint on participation that may be subject to misreport. To recap Kelly and Godbey (1994) report that a lack of time is often mentioned in research as a constraint to participation. They suggest that although there is no doubt validity to this constraint, it is probable that a lack of time is often stated to cover up the underlying reason, a lack of interest. They

explain that often individuals feel pressure to say they would like to participate even though they really have no interest in participation of the activity. This is because of the status connotations of the activity. In other words, if the activity is believed to be high in status, such as coaching is, individuals are more likely to excuse themselves rather than admit to having no interest. This is because status beliefs link higher status groups with competence, (Ridgeway, 2001).

Other explanations for a lack of interest in participation or coaching are not well documented, however the Australian Sports Commission, reporting from an informal study, argue that often players are not interested in coaching sport once they have finished their playing days. They note that there is an increasing trend to play to an elite level well into one's thirties, and that many athletes state that they would prefer to focus on things outside of their sport, such as family and career once they finish playing. In accordance with the "traditional" family model, it is more likely to be women who sacrifice interests outside of the family such as coaching, as they are expected to be the primary caregiver. (Knoppers, 1988) It is predicted therefore that the present research will find women to be less interested in coaching in the future than males. It is also expected that those not currently involved in coaching are likely to have less interest in coaching in the future than current coaches.

Lack of Skills

In the discussion regarding limited opportunities, it was mentioned that sport administrators often cite a lack of suitably qualified females applying for coaching jobs as a reason for the under representation of female coaches. As stated Acosta and Carpenter (1992) dispute this and from a New Zealand perspective with

government run initiatives available such as ‘Wining Women’ and ‘Coaches Count’ (www.hillarysport.org.nz, 2002) that aim to encourage female involvement in sport, it is highly likely that a lack of qualified women is not entirely the case.

The Australian Sports Commission suggests a perceived lack of skill is actually a confidence issue. The ASC point out that a large number of females who are approached to take up coaching positions lack confidence and belief in their own skills. It was also noted that a large number of female coaches already successful in Australia may see themselves as less skilled than male colleagues. As mentioned there is very little research regarding coaching and self-esteem. However the perceived inferiority of female coaching skills compared with male coaches is consistent with the literature regarding the bias in the evaluation of female leaders. Carli and Eagly (2001) state that, “women are presumed to be less competent than men and less worthy to hold leadership positions” (p631). Therefore it is predicted for the present research that female participants are more likely to perceive that they lack the necessary skills to coach.

The Present Research.

The present research aims to investigate the under representation of female coaches in the specific setting of field hockey. Three research groups will be used, these will be made up of New Zealand Hockey Federation regional development managers, hockey players from the Canterbury Hockey Associations premier league and students from the University of Canterbury. Separate questionnaires will be used for each of the research groups to gather information for the investigation. The questionnaire for the research group made up of male and female hockey players contains two external scales; possible influences on the likelihood of coaching and

the Rosenberg self esteem scale.

Research Goals and Predictions.

The overall goal for the present research is to further understand the possible reasons why women are under represented as coaches of field hockey. A literature review of previous studies in the areas of leadership, role models, sex based stereotypes, self esteem, constraints on leisure and coaching, have helped to shape specific research goals in four separate areas that the present study aims to investigate. Predictions about expected findings of the study are also noted.

1. Role models

The main goals of investigation in the area of role models is to determine three things. Firstly, Are participants more likely to male or female role models? The researcher predicted that participants are more likely to have same sex role models. Therefore it is expected males will typically have male role models and females will typically have female role models. Secondly are participants who currently coach more likely to have role models than those who do not coach? The researcher predicted that participants currently involved in coaching are more likely than those not involved to have male role models. Finally will having a role model have an impact on player perceptions of the characteristics associated with coaching? The researcher predicted that participants with male role models would perceive successful characteristics of coaching as stereotypically masculine characteristics.

2. Sex Based Stereotypes

In relation to the characteristics of coaching the present research aims to determine two things. Firstly what are the perceived characteristics necessary of successful coaching as perceived by male and female players? The researcher has predicted that both male and female participants will perceive the successful coaching characteristics as stereotypically masculine. Therefore it is expected that the characteristics to be associated with unsuccessful coaching will be perceived as typically less masculine. Secondly it is aimed to determine the sex differences in players perception of which teams perform better; male coached teams, female coached teams or whether the sex of the coach has no impact on performance. The researcher has predicted that both male and female participants are more likely to perceive that male coached teams will perform better.

3. Self Esteem

The present research aims to determine whether there are any sex differences in self esteem levels between males and females and whether self esteem ultimately plays a part in the likelihood of players becoming coaches.

Firstly the study aims to investigate whether males and female differ in self esteem levels. It is predicted that male participants will have higher self esteem levels than females. Secondly the study aims to investigate whether current coaches have a higher self esteem than those not presently coaching? It is predicted that participants currently involved in coaching will have higher self esteem levels than those not currently involved.

4. Likelihood Of Coaching

The aim of the research in this area is to investigate the possible reasons that influence an individuals likelihood of coaching. More specifically the present study asks if there are any significant differences between those who currently coach and those not currently involved in coaching on the nine factors associated with likelihood of coaching? The general prediction is that all nine factors will have an influence on the likelihood of involvement in coaching in the future. More specifically it is predicted that the five influences on coaching considered constraints on participation (A lack of time, fear of failure, limited opportunities, no interest and lack of skills) will be more likely to affect those currently not involved in coaching as compared to those participants currently coaching. Secondly it is aimed to determine whether there are any sex differences in the likelihood of coaching. It is predicted that the five possible constraints are more likely to influence female participants likely involvement in future coaching than males.

Method

Participants

Regional Hockey Development Managers, hockey players and non-hockey players were recruited to participate in this study.

New Zealand has fourteen Hockey Development Managers based all over New Zealand, who are hired by Provincial Hockey Associations to co-ordinate and implement the policies, practices and principles of field hockey as set by the New Zealand Hockey Federation. In total 10 Development Managers volunteered to participate. This consisted of 8 males and 2 females.

A total of 119 players (from the Canterbury Hockey Association's premier hockey league) volunteered to participate in this study. This was made up of 59 male players and 60 female players.

A total of 130 students (non hockey playing) from the Canterbury University of Canterbury volunteered to take part in this study. There were in total 65 males and 65 females.

Materials

All three research groups were required to complete a questionnaire. Due to differences in the information sought, each of the group's questionnaires differed from one another. Below is a description of each group's questionnaire. A copy of each of the questionnaires can be found in Appendix C,D and E.

Questionnaire One: Group One: *Development Managers*

The development managers were asked two, two part questions. The first part of question one required the group to “list the characteristics/qualities/traits of individuals that you consider are associated with successful hockey coaching”. Secondly this question required the participants to consider the negative side of coaching and ‘list all the characteristics/qualities/traits of individuals that you consider would prevent them being successful coaches’.

The second question the Development Managers were asked considered whether or not this group has a sex preference for hockey coaches. The participants were asked two questions regarding the importance of a prospective coach’s sex, when assigning coaches to firstly junior and secondly senior hockey teams. Both questions were answered on a 7point Likert scale. (1 = “not at all important” and 7 = “extremely important”).

Questionnaire Two: Group Two : *Hockey Players*

The participants of the hockey-playing group had four tasks to complete. Task One was the same as that of the development managers. Players were first asked to “list the characteristics/qualities/traits of individuals that you consider are associated with successful hockey coaching”. Second they were be asked to “list all the characteristics/qualities/traits of individuals that you consider would prevent them being successful coaches”.

The second task required the participants of this research group to answer four questions. This section dealt with player ambitions to coach and with self-esteem. The first two questions dealt with player ambitions to coach. Firstly participants

were asked if they were presently involved in hockey coaching. The response was noted by circling either Yes or No. Secondly participants were asked to indicate the likelihood of their becoming involved in coaching in the future. This question was answered on a 7 point Likert scale, (1 = “not at all likely” and 7 = “extremely likely”). The third question consisted of a list of nine potential reasons why individuals may or may not become coaches in the future. These reasons were based on information from Kay and Jackson (1991) and from The Hillary Commission (2002). All players were asked to rate the influence that each factor has on their likelihood of coaching on a 7 point Likert scale of 1-7, (1 = “not at all influential” and 7 = “extremely influential”). Participants were also given the opportunity to name additional factors as influences in the likelihood of being involved in coaching.

The nine factors used in the questionnaire are listed below:

1. *A desire to give something back to the sport.*
2. *A lack of relevant skills for coaching.*
3. *A desire to help others to achieve.*
4. *A lack of time.*
5. *A desire for power*
6. *Limited opportunities*
7. *A desire to stay involved in sport*
8. *No interest*
9. *A fear of failure.*

The third question required participants to complete the Rosenberg self-esteem

scale (SES) measuring trait (inner) self-esteem (1965). The scale required individuals to indicate their level of agreement (using a five-point scale, with 1= “agree very much”, 5= “disagree very much”) on ten statements of personal relevance.

Below are three examples from the scale.

- | | | | | | |
|---|---|---|---|---|---|
| 1. At times I think I am no good at all. | 1 | 2 | 3 | 4 | 5 |
| 2. I take a positive view of myself. | 1 | 2 | 3 | 4 | 5 |
| 3. All in all, I am inclined to feel that I am a failure. | 1 | 2 | 3 | 4 | 5 |

The third task dealt with player’s own coaching role models. There were two questions in this section for participants to answer. The participants were firstly asked, “whether there is any particular coach that is or has been a role model to them”. This was answered either yes or no, with participants asked to circle the appropriate response. Secondly the players were asked to identify whether this role model was male or female.

The final task for the hockey playing sample related to sex differences in coaching. Once again there were two questions to this section. The first question asked participants “whether they felt females were under represented in hockey as coaches” and had a yes/no response format. The second and final question asked participants whether they thought teams performed better with male or female coaches. Participants were asked to indicate their response by circling the appropriate answer from male, female and no influence.

Questionnaire Three: Group Three :*Non-Hockey Players*

The non hockey playing sample were asked to complete only one task. They were given a list of 27 factors and asked to what extent they felt each factor was typically masculine or typically feminine. It was explained to participants that masculine meant associated with males, and feminine associated with females. Participants were asked to respond to each factor on a 7 point Likert scale, (1= “typically masculine” and 7 =“typically feminine”).

The factors for this questionnaire were made up of perceived individual traits/characteristics and factors of both successful coaching and those considered preventative of it. The list of 27 was compiled from common responses by both group one (development managers) and group two (hockey players) from the first section of their questionnaires. Any factors considered hockey specific and not personality characteristics of males and females, for example, ‘knowledge of the game’ were not included in this list.

Procedure

Group one Procedure

An e-mail was sent to each of the 14 Regional Development managers in New Zealand. Although all the e-mails were the same, they were sent to each Development manager, individually and personally addressed. The e-mail introduced the researcher and explained that the researcher was conducting a study for his MSc thesis. The nature of the research project was briefly described and the individual was asked if they would take part in the study by completing a

questionnaire. It was explained to the individuals that the questionnaire should take no more than 10 minutes to complete, all responses would remain anonymous and that taking part in the study was completely voluntary. All 14 Development managers replied to the e-mail indicating their willingness to take part.

Each Development Manager was sent, via mail, a copy of the questionnaire and a self addressed stamped envelope for return of the completed questionnaire.

The information sheet (see Appendix F) explained once again who the researcher was and why the study was taking place. It stated that the research project was an investigation into “Coaching Field Hockey”. The researchers name, institution and contact phone number and e-mail address were provided for any queries or comments the participants had. The confidentiality and anonymity of participant’s responses was assured, as was the right of participants to withdraw participation, including the withdrawal of any information provided at any time.

The debriefing sheet (see Appendix G) was e-mailed to all participants who took part in the study once their questionnaire had been received. The debriefing sheet firstly thanked everyone for participating in the study. It then went on to discuss that the primary focus of the research was the under representation of females in coaching and detailed the two major hypothesis for the research.

Finally the debriefing sheet stated that full results from the study would be available at the end of February. If any of the participants wanted details of the findings, they were encouraged to contact the researcher. Once again the Researcher’s phone number and e-mail address were listed.

Group Two Procedure

The week before the questionnaires were administered, club hockey coaches were contacted by the researcher and informed about the study. The coaches were asked to inform players about the study before their upcoming game but to tell players that participation was completely voluntary.

On the day the questionnaires were administered club coaches were reminded prior to their game and asked to gather team members in a specially designated room at the Porritt Park Hockey stadium, after the teams warm down and game debrief had been completed.

Once players arrived, they were told that the questionnaire would take around 10 minutes to complete and that participation was voluntary. In total 10 individuals chose not to participate. All individuals were then handed a copy of the questionnaire and a pen. The information sheet (see Appendix E) covering the questionnaire was the same sheet as was used for Group One participants (Development managers).

Once participants had completed the questionnaire they handed it back to the researcher who gave them a debriefing sheet. The debriefing sheet was the same debriefing sheet used for Group One (see Appendix G)

Group Three Procedure

The participants who volunteered to be part of group three; the non-hockey playing research group, were approached at the University of Canterbury Library, and asked if they would like to take part in the research. All individuals approached were

informed that participation in the study involved filling in a questionnaire that would take around 10 minutes and that participation was completely voluntary. The questionnaires were administered and completed in one of the University of Canterbury Library group study rooms, so individuals wanting to take part in the research were assigned times to meet at the group study room. The study room was secured for two hours in the afternoon for three days, with groups of participants being organised to partake in the study in twenty minute time blocks.

The procedure for administering the questionnaire was exactly the same as used for the other two research groups. Once the individuals scheduled for their time slot arrived they were handed a copy of the questionnaire and a pen and asked to read the information sheet. The information sheet covering the questionnaire was the same sheet used for Groups One and Two (see Appendix F). A period of five minutes was reserved for those not on time, however after this had elapsed the doors were shut and participants were instructed to begin. A total of nineteen people, who originally agreed to participate, failed to turn up.

Once participants completed the questionnaire they handed it back to the researcher and who handed them a debriefing sheet. The debriefing sheet was the same debriefing sheet that was used for the other two research groups. (see Appendix G)

Results.

Mean scores for each dependent measure, as a function of sex of participant (male or female) and coaching status (whether they are presently involved in coaching or not) are shown on Table 1. In total 35 participants indicated they were currently involved in coaching. This consisted of 18 women and 17 men. There were 83 participants who were therefore not involved in coaching, this was made up of 42 woman and 41 men.

Table 1. Mean scores for dependent measure of a function of participant sex and coaching status.

COACH				
	Yes		No	
	Male	Female	Male	Female
Successful	5.03	4.44	4.71	4.48
Unsuccessful	5.78	5.80	5.91	5.80
Likelihood	6.24	5.44	4.32	4.32
Giveback	5.12	5.72	4.54	4.80
Skills	3.07	3.35	3.32	3.93
Achieve	5.94	5.56	4.88	5.00
Lack Time	4.25	5.00	5.17	5.80
Power	2.24	2.22	1.93	2.15
Limited Opps.	3.00	2.89	2.56	3.34
Involve	5.24	5.28	5.02	4.51
Interest	2.12	2.65	2.38	2.93
Failure	2.47	2.67	2.24	2.73
Self Esteem	23.00	24.24	20.98	24.77

Characteristics associated with successful and unsuccessful coaching.

A mean masculinity score was calculated for each of the characteristics rated for masculinity by the non-playing sample. This included all the characteristics (n=27) that had been identified by either players or administrators as characteristics of

successful coaching. The masculinity scores are listed in Appendix H. Higher scores indicate that a characteristic was seen as typically masculine (max =9)

The majority of characteristics identified as being associated with lack of success in coaching were simply “lack of” or “absence of” characteristics that were associated with successful coaching. For example, where “communication skills”, was a characteristic commonly associated with successful coaching, “lack of communication skills” was something that was frequently associated with unsuccessful coaching. Accordingly the masculinity scores were calculated by reverse scoring the mean masculinity score for the characteristics associated with successful coaching. For example if the masculinity score for “goal orientated” was 5.34 the reverse masculinity score for “not goal oriented” was 4.66. The masculinity scores for characteristics associated with lack of success in coaching are listed in Appendix I.

Using these masculinity scores a mean score for each individual in the hockey playing sample was calculated for both the characteristics they identified as being associated with successful coaching, and the characteristics they identified as being associated with lack of success in coaching. These mean masculinity scores were labelled as ‘successful’ and ‘unsuccessful’ scores for each player.

For example, one male participant, listed “Disciplinarian”(mean masculinity score = 7.22) and “Goal Oriented”(mean masculinity score = 5.34) as factors associated with successful coaching giving him a “successful” score of 6.28. For the factors considered preventative of successful coaching, the participant listed “Unorganised” (6.42) and “Narrow Minded” (6.06) giving him an “unsuccessful” score of 6.24.

A 2 (sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on successful scores. This revealed a main effect of sex $F(1,90) = 4.43$, $p < 0.05$. The traits identified as associated with successful coaching by male participants were more masculine than those identified by female participants. ($M_s = 4.81$ vs. 4.46).

A 2 (sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on “unsuccessful” scores. This yielded no significant effects.

Likelihood of Coaching

The playing sample were asked to indicate the likelihood of their involvement in coaching in the future. The higher individuals scored (maximum seven), the more likely it was that they would be involved as coaches in the future.

A 2 (sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on the likelihood of players coaching in the future. This revealed a main effect of coaching $F(1,113) = 56.85$, $p < 0.01$. Those presently coaching considered themselves to be more likely to be involved in coaching in the future than those not currently involved ($M_s = 5.83$ vs. 4.32)

The following analyses, was conducted on the factors that may influence whether or not somebody becomes involved in coaching. Each factor was rated by the players according to the extent that they believed it influenced their likelihood of being involved in coaching. (1 = “not at all influential”; 7 – “extremely influential”)

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on giving back to the sport. A main effect of Coaching was revealed. $F(1,113) = 6.88$ $p < 0.01$. Those presently involved in coaching considered giving something back to the sport to be more influential on their likelihood of involvement in coaching than did those not currently coaching. ($M_s = 5.43$ vs. 4.67).

A 2(sex of player: male/ female) x 2 (currently coaching: yes/no) ANOVA was conducted on a lack of relevant coaching skills. This yielded no significant effects.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on a desire to help others achieve. This revealed a main effect of coaching. $F(1,113) = 16.06$, $p < 0.01$. Those presently involved in coaching considered helping others achieve to be more influential on their likelihood of involvement in coaching than did those not currently coaching ($M_s = 5.75$ vs. 4.94).

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on a lack of time. This revealed main effects for both sex, $F = (1,112) = 4.81$, $p < .05$ and coaching $F = (1,112) = 7.48$, $p < 0.01$. A lack of time was considered by females to be more influential on their likelihood of coaching than it was for males. ($M_s = 5.56$ vs. 4.91) Those currently not involved in coaching considered a lack of time to be more influential on their likelihood of coaching than did those who currently coach ($M_s = 4.65$ vs 5.49).

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on a desire for power. This yielded no significant effects.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was

conducted on limited opportunities. This yielded no significant effects.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on a desire to stay involved with the sport. This yielded no significant effects.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on no interest. This yielded no significant effects.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA was conducted on a fear of failure. This yielded no significant effects.

To investigate the possible relationship between an individuals likelihood of coaching and factors thought to be associated with the likelihood of coaching, Pearson product-moment correlations were conducted between likelihood of coaching and each of the 9 factors used in the player questionnaire, that were thought to be influential factors on an individuals likelihood of being involved in coaching. These correlations are shown in Table 2.

Table 2: Correlations between likelihood of coaching ratings and ratings of possible influential factors.

	Likelihood of Coaching
Giveback	0.37*
Skills	-0.11
Achieve	0.44*
Lack Time	-0.24*
Power	0.02
Limited Opps	-0.02
Involve	0.43*
Interest	-0.20
Failure	0.08

* $p < 0.05$

Four correlations yielded significant relationships. A significant positive correlation between likelihood of coaching and a desire to give back something to the sport ($r(116) = 0.37, p < 0.05$) indicated that the more participants thought that a desire to give back something to sport influenced their likelihood of coaching in the future, the higher was their likelihood rating.

A significant positive correlation between likelihood of coaching and a desire to help other achieve ($r(116) = 0.44, p < 0.05$) indicated that the more participants thought that a desire to help others achieve influenced their likelihood of coaching in the future, the higher was their likelihood rating.

A significant negative correlation between likelihood of coaching and a lack of time ($r(116) = -0.24, p < 0.05$) indicated that the more stronger participants thought that a lack of time influenced their likelihood of coaching in the future, the lower was their likelihood rating.

A significant positive correlation between likelihood of coaching and a desire to stay involved in sport ($r(116) = 0.43, p < 0.05$) indicated that the more participants thought that a desire to stay involved influenced their likelihood of coaching in the future, the higher was their likelihood rating.

Taken together these results indicate that likelihood ratings were influenced by participants desire to give something back to the sport, their desire to help other achieve, their desire to stay involved in the sport and their lack of time. Looking at Table 1 shows that these factors, correlated with likelihood ratings, also had the highest mean ratings of the factors influencing coaching.

Self Esteem.

The playing sample completed the Rosenberg self-esteem scale (SES, 1965) measuring trait (inner) self-esteem. Statements 1,3,4,8 and 10 were reverse scored and then the total score calculated for each participant. The higher the total score, the lower an individual’s self esteem.

A 2(sex of player: male/female) x 2 (currently coaching: yes/no) ANOVA on self esteem score, yielded no significant effects.

To investigate the possible relationship between self esteem and the likelihood of coaching and factors underlying the likelihood of coaching, Pearson product-moment correlations were conducted between self esteem, likelihood ratings and each of the 9 factors thought to influence an individual’s likelihood of being involved in coaching. These correlations are in Table Three.

Table 3. Correlations between self esteem and factors associated with likelihood of coaching

	Self Esteem
Likelihood	-0.08
Giveback	-0.10
Skills	0.12
Achieve	0.02
Lack Time	0.07
Power	0.06
Limited Opps	0.07
Involve	-0.01
Interest	0.05
Failure	0.24*

* p< 0.05

Only one of these correlation’s (fear of failure) yielded a significant relationship. A significant correlation between self esteem and a fear of failure ($r(113) = .24, p<.05$) was revealed. Lower self esteem is associated with stronger beliefs that fear of failure influences their likelihood of coaching.

Role Models.

Table Four shows the numbers of male and female players who indicated that they had a coaching role model.

Table 4. Identification of coaching role models as a function of participant sex

	No Role Model	Role Model
Male Player	9	51
Female Player	7	47

Table four indicates that the majority of players in the sample had role models. It also indicates that having a role model did not differ for male and female participants.

Table Five shows, the sex of the role model (male/female) for those players who indicated the sex of their role model

Table 5. Sex of role model as a function of player sex.

	Male Role Model	Female Role Model	Total
Male Player	49	2	51
Female Player	22	25	47
Total	71	27	98

A chi square was conducted on the sex of the participants role model. This revealed

a significant result. $X^2 = 29.74$, $p < .0001$, indicating a relationship between player sex and role model sex. Male players were more likely to have a male than a female role model whilst females were equally likely to have a male or a female role model.

Table Six shows, the sex of the role model (male/female) for those players who indicated they were currently involved in coaching.

Table 6. Sex of role model as a function of participant sex for those currently involved in coaching.

	Male Role Model	Female Role Model	Total
Male Coach	17	-	17
Female Coach	3	10	13
Total	20	10	30

male players currently coaching were more likely to have male role models, whilst females were more likely to have female role models.

The sex of participant’s role models was also used as an independent variable to investigate whether the sex of one’s role model influences perceptions of characteristics associated with successful and unsuccessful coaching. These analysis were only conducted on those participants who indicated the sex of their role model.

A 2(sex of player: male/ female) x 2 (role model sex male/ female) ANOVA was conducted on “successful” scores. This revealed a main effect of sex $F(1,75) = 4.5$, $p < 0.05$. The traits identified as associated with successful coaching by male participants were more masculine than those identified by female participants. ($M_s = 4.69$ vs 4.00), which is consistent with the corresponding analysis conducted on

all of the hockey players.

A 2(sex of player: male/ female) x 2 (role model sex male/ female) ANOVA was conducted on “unsuccessful” scores. This revealed main effects for both sex, $F=(1,62) = 6.23, p< 0.05$ and sex of role model $F=(1,62) = 5.09, p< 0.05$. The traits identified as associated with unsuccessful coaching by male participants were more masculine than those identified by female participants. ($Ms = 6.55$ vs 5.67) The traits associated with unsuccessful coaching by those with male role models were less masculine than those with female role models. ($Ms = 5.71$ vs 6.5)

Perceived Performance

Table Seven shows male and female players beliefs about whether a team performs better when it is coached by a male or female or whether the sex of the coach has no impact on performance.

Table 7. The perceived performance of a team as a function of sex of coach and sex of player.

	Male Coach	Female Coach	No Diff
Male Player	35		22
Female Player	18	1	36

For the following analysis, “female coached teams perform better” was eliminated, as only 1 participant from 112, felt that teams perform better with a female coach. This left two categories, “male coached teams perform better”, and “no difference

in teams performance due to sex of coach". A chi square analysis was performed, this produced a significant result. $X^2 = 8.75$, $p < .001$, indicating a relationship between sex of players and perceived performance of a team as a function of sex of coach. Male players were more likely to believe that team would perform better with a male coach, whilst females were more likely to believe that team performance would not differ as a result of the sex of the coach.

The perceived performance of a team as a function of sex of coach was also used as an independent variable to investigate whether perceived performance of a team influences perceptions of characteristics associated with successful coaching.

A 2(sex of player: male/female) x 2 (perceived performance: male/no difference) ANOVA conducted on "successful" scores, yielded no significant effects.

A 2(sex of player: male/female) x 2 (perceived performance: male/no difference) ANOVA was conducted on "unsuccessful" scores. This revealed a main effect of perceived performance. $F(1,72) = 4.39$, $p < 0.05$. The traits associated with lack of success in coaching were less masculine for those participants who believed that teams performed better with a male coach than for those participants who believed that the sex of the coach did not differentially influence team performance ($M_s = 5.68$ vs 6.00).

Discussion

The results of the present study focus on two areas, sex differences between male and female participants and coaching differences between participants that are currently involved in coaching and those that are not. The results will be discussed, in relation to overall findings and then in regards to the four major areas considered in the introduction; role models, self esteem, sex based stereotypes and constraints on participation. The discussion of the results will also elude to the implications these findings have for the hockey world in general, and also for women's status in hockey, and finally limitations of the present research and suggestions for future research will be discussed.

Overall the results of the present research do not indicate there is an under representation of females coaches in field hockey. There were no significant sex differences in the number of males and females currently coaching, nor was there any significant difference between males and females in the likelihood of involvement in coaching in the future. There are several possible explanations for this trend, firstly it could be said that the under representation of females coaches in field hockey is a situation that is "balancing" itself over time. The equal distribution of males and females participants as current coaches and in the likelihood of involvement in coaching in the future, might be interpreted that the current results indicate a gradually changing appearance of coaching, one which will ultimately lead to equal representation of the sexes in coaching. However given the current coaching situation in Canterbury Hockey in terms of who coaches whom and that the present research is not longitudinal, in that it only accounts for an indication of

future involvement by current players, as opposed to actual involvement in coaching once participants have finished playing hockey. An explanation of change therefore, can only be based on pure speculation. Rather it is more likely that the results indicate the under representation of females in coaching may be a function of status and therefore an issues of under exposure or lack of exposure, as opposed to a numerical difference. In other words involvement appears to have different connotations for males and females. By looking at the current sex representation of coaches in both Canterbury Hockey competitions and the National League, it is seen that of 50 hockey teams (25 male teams and 25 female teams) in the top three grades in Canterbury, only 12, are coached by females. Similarly in the 2001 National League, of the 15 coaches in charge of 12 teams (3 teams had co-coaches) only 2 coaches were female. This indicates that although there may be equal numbers of males and females currently involved in coaching, or even showing an interest in coaching in the future, as indicated by the present study's results, the tendency is for men to dominate the higher status coaching positions. It also indicates that male teams are considered higher status teams, which is consistent with research conducted by Carli (2001) and Ridgeway (2001) whose studies in the relationships between gender and leadership indicate that women in comparison to men have lower levels of status and power. Therefore in relation to coaching, regardless of numerical equality it is likely that males will coach more high profile, high status teams, than females.

Self Esteem

The results of the present study's analysis showed that there were no sex differences in self esteem nor was there a link found between self esteem and the likelihood of coaching.

Previous research in participation (Richman et al, 1985; Raymore et al, 1994) has shown that females are significantly lower in self esteem than males. It was therefore predicted by the researcher that a sex difference between male and female self esteem would be evident in the present study. However the present results do not support this well documented finding. A possible reason for the differences in previous research and the present study is the difference in participants. Both Richman et al (1985) and Raymore et al (1994) conducted the Rosenberg Self Esteem Scale on adolescent students. The present study differed from these studies, in that the participants used in the present research were aged typically in their mid twenties and all were considered competent athletes.

The participants' competence in athletic ability is likely to have had an affect on their self esteem scores. Research has suggested that participation in sport has an influence on self esteem levels. Richman and Shaffer (2000) investigated the influence of sport participation on the self esteem levels of adolescent females. They found that sport participation predicted higher self esteem levels in the exclusively female sample. In other words it was found that participating in sports promoted females' self-worth by fostering physical competencies and abilities. Therefore in terms of the present research, although it was expected that males would have significantly higher levels of self esteem than females, the fact no sex differences were found is likely to be due to the competence in athletic ability that all participants were considered to have as a result of being senior level hockey players. This is a factor which previous research has shown influences self esteem levels.

The results of the study also proved contrary to the researchers predictions for the case of the difference in self esteem levels for those currently involved in coaching

and those not currently involved. It was predicted that those not involved in coaching were likely to have lower self esteem than those participants who currently coach. The results however showed no differences in self esteem levels between coaches and non coaches. Once again it is likely that participants competence in athletic ability is responsible for the lack of difference in self esteem levels.

In terms of the overall pattern of results, self esteem is very important. It was originally predicted that self esteem would be related to current coaches and the likelihood of future coaching involvement. It was also thought that there would be a significant sex difference between males and females, ultimately indicating that as a result of self esteem levels males, who were presumed to have higher levels of self esteem, would be more likely to be involved in coaching both in the future and currently than females. However the lack of reported differences in self esteem obviously does not show this, instead it lends support to the overall finding that has been shown in this study; females are not under represented in terms of current coaches and in the likelihood of coaching in the future. Therefore in terms of the present study, self esteem is not a barrier or an issue involved in both women's coaching and woman's ambitions to coach. In terms of future research, self esteem differences should be investigated with a hope to further investigate the relationship with status in coaching. It may be worthwhile therefore looking at male and female coaches who no longer participate as players and assess if there are any relationships between the level they coach at and self esteem.

It is noteworthy that the results showed no relationship between self esteem and the likelihood of coaching was found. However they do show a relationship between

self esteem and a fear of failure was evident. Individuals low in self esteem were more likely than those high in self esteem to consider a fear of failure an influencing factor in the likelihood of coaching. This was to be expected, due to the nature of both fear of failure and self esteem. Self esteem as noted refers to an individuals attitude of positivity or negativity towards themselves. (Solomon, 1996) In other words those high in self esteem have a positive attitude toward themselves, while those low in self esteem are negative towards themselves. A fear of failure, is an attitude in which elicits a negative outlook because the individual thinks success is not achievable. Similarly with Hornerr's (1972) motive to avoid success, it is an action to avoid a negative consequence and hence presents a negative outlook of the self because success is deemed as either unachievable or inappropriate.

Role Models.

Analysis on role models provided some interesting results. Contrary to the researchers predictions that males and females would have same sex role models, it was found that although males were more likely to have a male role model than a female role model, females were equally likely to have either.

A possible reason for this, is the problematic situation, of a lack of exposure to female coaches. A review of the current coaching set up in the top three male grades in Canterbury Hockey competitions, indicates that only one female is the coach of a male team. Hence the males in the study, would be more likely to have male role models because they are not exposed to female coaches. The females in the study have been exposed to both male and female coaches as analysis of the top three women's grades in Canterbury hockey reveals that 14 of the teams are coached by males and 11 by females. Therefore as indicated in the results females

who are exposed to both male and female coaches are just as likely to have a male role model as they are a female role model.

Supportive of a lack of exposure to female role models was the finding that that no males currently involved as coaches had female role models. Originally it had been planned to conduct a chi square analysis between male and female participants currently coaching and the sex of their role model. However given the non existence of female role models for male coaches the analysis could not be conducted. Nevertheless a pattern is evident from the information in Table 6 (p). It is clearly shown that those currently coaching were more likely to have same sex role models. In other words, males currently involved in coaching were more likely to have a male role model whilst females currently involved in coaching were more likely to have a female role model. This result has tremendous significance to the overall findings of the study. The fact that females who are involved in coaching have female role models indicates that female coaches are being observed and modelled upon. However it also indicates that although suitable females are obviously present in coaching males are not seeing these females as models. This can be explained by females, having greater exposure to female coaches. Habib et al (2001) provides different explanation. They discuss a negative attitudes that is associated with females in coaching. Therefore it is conceivable that males do not adopt female role models because they have an inherently negative attitude towards female coaches.

As mentioned in the introduction there is a lack of research in the area of same sex role models for coaching, and the question was proposed in the introduction if a lack of same sex role models would be an inhibitory factor for female involvement

in coaching. This was based upon Sleaf's (1998) statements that a lack of same sex models for women to observe can transmit information that women are not suitable for coaching roles. However the results indicate that there is not a lack of female role models available to female players, to recap female coaches were found more likely to have female models than male models, which obviously would not have been the case if there were no suitable female coaches available. The present results therefore support the overall finding that women are just as likely to coach as males are, but also needs further investigation to determine the status of female role models in relation to the extent of the participants coaching ambitions. In other words, what are the coaching ambitions of females are they high status ambitions or lower status, secondly what is the status of their role model.

In terms of the relationship between participants with role models and the perceived characteristics associated with successful and unsuccessful coaching, the analysis found three significant components. Firstly as predicted the characteristics identified as associated with successful coaching by male participants were more masculine than those identified by female participants, this result in turn was consistent with the corresponding analysis, which was conducted on all the participants. Secondly the characteristics identified as associated with unsuccessful coaching by male participants were more masculine than those identified by female participants. This was something that was not consistent with the corresponding analysis for all the participants. Finally the traits associated with unsuccessful coaching by those with male role models were less masculine than those with female role models.

Before specifically discussing the possible reasons for these findings, it should be

noted that the overall masculinity of the characteristics associated with successful coaching was very low. (see Appendix H). The overall masculinity associated with unsuccessful coaching (see Appendix I) in comparison however was a lot higher. One reason for this trend, is the realisation that coaching has evolved past reliance on strictly masculine attributes. This paper has discussed the under representation of females in coaching against a back drop of patriarchal dominance, however Potrac and Jones (1999) suggest that for too long approaches to coaching have largely neglected its dual nature. They argue that researchers concentrate on a mechanical approach that presents coaching as a purely technical process. This ignores the other side of coaching, the side that deals with the inconsistencies and realities of human interaction. By looking at this definition in relation to research in stereotypical gender roles, the make up of a more complete definition of coaching involves both agentic and communal attributes. In other words coaching requires characteristics that are typically associated with both males and females as opposed to the traditional view that coaching and leadership requires only masculine characteristics. In reference to the present study it is possible that the low presence of overall masculinity in characteristics associated with successful coaching indicates the importance of stereotypically communal attributes to coaching. The present research has not specifically focused on coaching attributes in terms of their agentic and communal base. In order to further investigate why successful characteristics overall scored lowly in terms of masculinity, future research may want to consider and evaluate the agentic/communal base of each characteristic.

Returning to the results in question, it was firstly found that the characteristics

identified as associated with successful coaching by male participants were more masculine than those identified by female participants for male and female participants that had role models. This was partially predicted by the researcher, who thought that both males and females would identify the successful characteristics of coaching as typically masculine. Therefore the question remaining is why are there differences between the sexes. Table 5 (p) shows that male players were more likely to have male role models, and that female players were equally likely to have male or female role models. Once again it is likely that a lack of exposure to female coaches for male participants at a high level of hockey, and therefore a lack of female role models, may be responsible for men perceiving successful characteristics as more masculine than females did.

Females, who are typically exposed to both male and female coaches, and are therefore equally likely to have either male or female role models, are likely to see the dual nature of coaching, as explained by Potrac and Jones (1999). Coaching as discussed above has moved from a purely scientific mechanical, agentic approach to one that encompasses both agentic and communal attributes. Males modelling their behaviour from only male coaches will be left with a typically 'masculine' view of what characteristics are needed for successful coaching. Whilst females who typically experience both male and female coaches and do not show a preference for either sex as a role model, will encompass both masculine and feminine characteristics in their perception as to what the attributes are of successful coaches.

It was also noted that for participants with role models the characteristics identified as associated with unsuccessful coaching by male participants were more masculine

than those identified by female participants. This supports the arguments above, in that once again males are modelling their behaviour from male role models, hence they are more likely to see the traits associated with unsuccessful coaching as more masculine than female participants, who experience both male and female coaches.

Finally the traits associated with unsuccessful coaching by those with male role models were perceived as less masculine than those participants with female role models. This result must be viewed with caution due to the relatively high masculinity association that was found with unsuccessful scores. The means indicate (*Ms* 5.71 vs 6.5) that both groups perceived the characteristics of unsuccessful coaching as stereotypically male, and due to the reported high nature of masculinity's association with unsuccessful coaching, there is not a lot of difference between the two.

The overall explanations for the results regarding role models are based around a lack of exposure to female role models for male participants. This lack of exposure is indicative of status differences in male and female coaches. Males are high status coaches, and therefore are likely to coach both males and females, whilst women who are seemingly construed to low status positions, as a result of gender stereotypes, coach mainly females. The lack of exposure is consistent with arguments for the findings in stereotypes and likelihood of coaching, it is also consistent with the overall finding that women in the present study are not under represented in terms of numbers, rather in terms of their status and exposure as coaches.

Stereotypes

In terms of the results relating to stereotypes there are two types, results regarding the characteristics associated with successful and unsuccessful coaching, and the results regarding the perceived performance of teams based on the sex of the coach.

The results regarding the characteristics associated with successful and unsuccessful coaching showed that the characteristics that males associated with successful coaching were considered to be more masculine than the characteristics that females associated with successful coaching. This was consistent with that corresponding analysis on participants with role models. Therefore this result supports the argument that there is a lack of exposure to female coaches, for male participants and that this lack of exposure may be responsible for men perceiving successful characteristics as more masculine than females did. To elaborate in the Canterbury senior men's competition from which all the male participants came from, there are no female coaches, hence males can only base their perception of the successful characteristics associated with coaching, from the stereotypically masculine qualities that are continually displayed to them by male coaches. Contrary to the role model analysis it was also shown that there were no sex differences in the masculinity of the characteristics associated with unsuccessful coaching. One explanation for this, is due to the overall higher masculinity means that were associated with unsuccessful coaching.

In terms of results regarding the perceived performance of teams based on the sex of coach it was found that male players were more likely to believe that teams would perform better with a male coach. The fact males believe that teams perform better with male coaches is consistent with the studies of Williams and Parkhouse (1988), the informal study of the Australian Sports Commission (www.ausport.gov.au, 2002)

all which indicated that male coaches were preferred to female coaches as they were judged to be more effective and more successful than female coaches. Once again these findings support the discussed explanation of a lack of exposure to female coaches for male players. However another explanation deals with status beliefs. It has been discussed that the under representation of females as coaching may be linked to status. Carli's (2001) statement that men are presumed to be more competent than women links the finding to issues of status beliefs. Due to the stereotypically perceived competence of men and incompetence of females, male coached teams are perceived to perform better.

However this explanation would therefore assume that females would also perceive male coached teams to perform best, which was not what the present study found. What was found, was females were more likely to believe that team performance would not differ as a result of the sex of the coach. However status beliefs are typically prescribed to and endorsed by the dominant group. (Ridgeway, 2001). In terms of hockey, males dominate the higher status coaching and therefore are more likely to endorse the belief. Interestingly however Table 7 (p) shows that although females believed that team performance would not differ as a result of the coaches sex, only one female felt teams performed better with a female coach whilst 18 thought male coached teams performed better.

Finally the participants, who believed that teams performed better with male coaches were found to perceive the characteristics associated with unsuccessful coaching, as less masculine than the characteristics that participants who believed the sex of the coach did not differentially influence team performance. This result is similar to those with male role models perceiving the characteristics associated

with unsuccessful coaching as less masculine than those with female role models. Once again the difference in means is very small and given the high masculinity associated with unsuccessful scores it should therefore be approached with caution. Again both groups associate the characteristics of unsuccessful coaching as stereotypically masculine.

Possible Influences on the Likelihood of Coaching.

The results of the present study's analysis on the likelihood of coaching investigated both sex and coaching differences and factors thought to be possibly influential on an individual's likelihood of becoming a coach. It was found that there were no sex differences in the likelihood of involvement in coaching. This did not support the researcher's prediction, but does show consistency with research indicating the absence of role conflict in leadership. The research also discovered that only three of the 'nine' possible influences on coaching were found to be influential on the likelihood of coaching.

As the researcher predicted, those currently involved in coaching considered themselves to be more likely involved in coaching in the future than those currently not coaching. The most interesting finding was not predicted by the researcher. This was that males and females did not differ in their likelihood of involvement in coaching in the future. This is consistent with the finding in the present study that there were no significant sex differences in the number of males and females currently coaching. Once again this indicates that the under representation of females in coaching is not a numerical problem, rather it is indicative of the status differentials between male and female coaches.

There are several possible explanations for these findings .One of which surrounds role conflict. Role conflict in sport refers to the disharmony women feel between the stereotypical characteristics of femininity and the perceived characteristics necessary for success. (Habif et al, 2001) For example, several researchers (Felshin, 1974; Harris, 1978) have shown that dissonance caused between attributes of femininity, e.g. and the characteristics perceived to be necessary for sport, e.g. have hindered woman's experiences in sport. However recent studies have shown that the majority of women in sport do not experience role conflict. (Anthrop and Alison 1983; Descertain and Weiss, 1988) It is this finding, that role conflict is non existent in a sporting setting that is of relevance to the present study. If women are not experiencing conflict between the perceived characteristics necessary for coaching and the attributes of femininity it is expected and shown in the results, that females will be just as likely to be currently involved in coaching and indicate also likelihood in future involvement in coaching just the same as men.

In terms of the specific factors thought to be influential on the likelihood of coaching, only some were significant. Giving something back to the sport and helping others achieve were two factors that were significant influences for current coaches. In other words current coaches were more likely than those not coaching to consider 'giving something back to the sport' and 'helping others achieve' influential on their likelihood of involvement in coaching. Also of note, in relation to influential factors on the likelihood of coaching are the 'other' factors participants may have listed on their questionnaire. Although not many participants added any factors, common answers of those that did related to careers and money. In other words, the likelihood of these individuals being involved in coaching was

dependent on both their career and financial situation in the future.

Significant relationships between a lack of time and both sex and coaching were also discovered. A lack of time has been a well-documented and researched constraint on participation. (Kelly and Godbey, 1994; Kay and Jackson, 1994, Raymond et al, 1994). The present study found differences in time constraints, both between the sexes and between those currently involved in coaching and those not. As predicted by the researcher, the present study found that females considered a lack of time to be more influential on the likelihood of coaching than males did. This finding has been well documented in previous research. (Knoppers, 1988; Samdahl and Jekubovich, 1997). The most common explanation for this finding is family responsibilities. The idea being that woman do not have time to coach, because family commitments, be it starting family or child care, are time consuming and therefore dramatically affect a women's ability to commit to a coaching role. It must however be noted that family responsibilities can and do affect males as well, so it is not a stringent female only constraint. Also not all females take on the primary caregiver role, the perspective is taken from the 'traditional' family model that depicts females as responsible for children. (Knoppers, 1988).

Notably not one female participant listed 'family commitments' as an influential factor on the likelihood of involvement in coaching. However several did note their career as an influential factor. This is reflective of the increase in career driven and focused woman. (Knoppers, 1988; Carli and Eagly, 2001).

The findings of the study were in accordance with the researchers predictions suggesting that those not currently involved in coaching were more likely to find a

lack of time as an influence on the likelihood of involvement in coaching. The study as noted, allowed participants to add in other factors not mentioned in the questionnaire that they found to be an influence on the likelihood of their involvement in coaching. One of the mentioned factors, 'career' appears to have a link with a lack of time both Knoppers (1988) in her research and the Australian Sports Commission (2002) have documented this link. Most of the players in the Canterbury Hockey Association senior competitions are mid twenties, and are now just embarking upon careers. It is therefore likely that in order to achieve success in the particular fields these individuals choose, an investment of time is required to firstly build a career and in the future to further it. This is time, which is perceived as better, spent on a career than on coaching, particularly since hockey is an amateur sport and therefore is unlikely to return financial benefit for time involved. It is possible however that the finding may lend support to the Kelly and Godbey argument (1994). Kelly and Godbey question the validity of a lack of time as a constraint and suggest that it may simply indicate a lack of interest. They also argued that this phenomenon was likely in high status activity, as individuals feel pressured to say they want to be involved even though they have no interest in the activity, and therefore use time as a simple way out. What makes this a possible explanation for the findings of the present research, is that firstly coaching is a position that is loaded with high status connotations. (Wilkerson, 1996) Therefore consistent with the Kelly and Godbey (1994) argument is the possibility that participants with no interest in coaching may have felt pressured to indicate an interest, that is hampered by the barrier of time. Secondly the factor 'no interest' was shown not to influence coaches and non coaches in likely involvement of coaching, this may be as a result of participants masking their actual non interest

behind the illusion of time a time barrier.

It is important to note, that these explanations are speculative rather than definitive. The present study did not break down 'a lack of time' into certain areas and factors. This would have allowed a more detailed understanding of this constraint. This is a consideration for future research.

Implications.

The findings of the present study indicate that females are not under represented in terms of current coaches or in the likelihood of involvement in coaching in the future rather they are under represented in exposure to male players and to higher status teams, evidence suggesting that patriarchal dominance still remains in hockey. Take for example player perceptions of the under representation of females in coaching. Sixty four percent of women and fifty percent of men feel that women are under represented in hockey. The fact that fifty percent of men recognise this problem is encouraging, however still shows not only the dominance males have in hockey, but the extent to which this unequal balance is not rec. For hockey to move completely forward to an equal footing between the sexes, there needs to be an attitude change.

Development managers were asked to indicate the perceived importance of same sex coaches for senior and junior teams. Many reported back, that it was fine to have male coaches for both males and females, however it was only acceptable for females to coach females, because male players do not respect female coaches. An active change to this attitude must be developed in order for hockey to develop itself past patriarchal dominance. One way to bring about attitudinal change in

hockey is to increase the perceived competence of women. Yoder (2001) has noted that due to the gender stereotyping of leadership, women automatically face an uphill battle. She suggested a way to balance this is for women to exhibit exceptional competence in leadership pursuits. This however is an unfair requirement for women, as it is inherently prejudiced to establish a higher standard for women than men. Therefore organisations must take responsibility and provide support for women. The prevalence of women in the coaching scene must be increased. Strategies to achieve this may include female specific coaching courses, active recruitment of female coaches and presentation of successful women coaches as role models to inspiring coaches.

Limitations and Future Research.

Throughout the discussion several areas have been highlighted as limitations of the present research, and suggestions have been put in place to build on for future studies. To recap, Self esteem is an area that needs to be refocused upon. The present study found no differences in the likelihood of coaching or between the sexes. Given that the overall results indicate that under representation in coaching hockey may be based on status, consideration must be given in this area to its relationship with self esteem. It was also suggested that future research may investigate self esteem in coaches, who are no longer actively playing the sport, as participation was shown to have an influence on self esteem levels.

In terms of the characteristics associated with successful coaching and unsuccessful coaching, it was noted that overall the masculinity means showed low masculinity associated with successful coaching and high masculinity associated with unsuccessful coaching. The present research did not investigate this in terms of

agentic and communal bases and a consideration for future research is to consider and evaluate the agentic/communal base of each characteristic.

Lack of time was as expected found to be an influence on an individuals likelihood of coaching. it was noted in the introduction and the discussion that time is often considered as a controversial factor. Breaking up time into different areas to get a better understanding of its affect may help future research.

In terms of the overall findings, the issues of status and perceived level of coaching participants what to achieve need to be investigated further. it was suggested that this could be done in tandem with role model analysis to help determine the status of female role models in relation to the extent of the participants coaching ambitions. The question to be answered is what the status level is of female role models and does this have an affect on the level participants desire or expect to coach to.

Conclusion

To conclude, the overall results of the present study indicate that females are not under represented as coaches in field hockey in terms of current coaches and the likelihood of future involvement in coaching. The notion, that this may signal a gradual changing face of hockey coaching to sex equality has been refuted, by re addressing under representation of female coaches, from a different perspective. The results of the present study support a change of focus. Self esteem findings showed that there is no difference between males and females in the likelihood of involvement in coaching, suggesting that self esteem in the context it was used for this study may not be a factor. The findings on analysis of both role models and stereotypes suggested that differences in male and female coaching may be due to

status and a lack of exposure of female coaches. Although future research is needed to understand this situation more extensively, it is concluded that the present study found an under representation of females in coaching based not on numerical figures but on status and exposure.

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APPENDIX A

Checklist of 19 Main Types of Constraint

1. Financial
2. Time
3. Family Commitments
4. Work
5. Transport Problems
6. Health-Related
7. Lack of Provision
8. Domestic Commitments
9. Age
10. Being Too Tired
11. No One Friends to Participate With
12. Partner Not Interested
13. Lost Interest
14. Being Married
15. Time Spent on Other Interests
16. Lack Information
17. Lack Skill/Ability
18. Booking Difficulties
19. The Weather

Source: Kay and Jackson (1991)

APPENDIX B

Why Do People Participate In Sport?

People play sport for a variety of reasons. As a coach you should consider what you want out of coaching and why your athletes are participating. This will influence how you approach your coaching during training and competition and the goals you will set for the season.

Consider the model below, outlining some of the reasons why people do or don't participate in sport.

Why People Play Sport
Play Sport

- Improve fitness/skill level
- Make new friends
- Family/home/work commitments
- Sense of belonging/peer pressure
- Fun and enjoyment
- motivation/confidence
- Fame or money
- Achievement of goals

Why People Don't

- No time/too busy
- Too competitive
- Lack
- Cost - too expensive
- Physically unable



Why People Coach

- To give something back to their sport
- Help others to act
- To stay involved in the sport they love
- Power/recognition/money
- Help the local community or school
- A natural progression
- No-one else to take the team
- Too old to play

Source: Hillary Commission (2002)

APPENDIX C

Questionnaire for Regional Development Managers

1. Please indicate your sex (**Please circle**)

FEMALE / MALE

2. What characteristics/qualities/traits of individuals do you consider are associated with their being successful hockey coaches? (**Please List**)

3. What characteristics/qualities/traits of individuals do you consider prevent them being successful as hockey coaches? (**Please list**)

4. Please indicate on the scale below how important you think it is to have same-sex coaches for age group teams? Do this by circling the appropriate number on the scale.

1	2	3	4	5	6	7
<i>not at all</i>						<i>extremely</i>
<i>important</i>						<i>important</i>

5. Please indicate on the scale below how important you think it is to have same-sex coaches for senior teams? Do this by circling the appropriate number on the scale.

1	2	3	4	5	6	7
<i>not at all</i>						<i>extremely</i>
<i>important</i>						<i>important</i>

APPENDIX D

Questionnaire for Players

1. Please indicate your sex (**Please circle**)

FEMALE / MALE

2. What characteristics/qualities/traits do you consider are associated with their being successful s hockey coaches successful hockey coaching? (**Please list**)

3. What characteristics/qualities/traits of individuals do you consider preventative of successful hockey coaching? (**Please list**)

4. Are you presently involved, in hockey coaching? **(Please circle)**

YES / NO

5. Please indicate on the scale below the likelihood of you being involved in coaching in the future. Do this by circling the appropriate number on the scale

1234567

not at all

likely

extremely

likely

6. Please indicate on the scales below how influential each factor is on your aspirations to coach? Do this by circling the appropriate number for each factor on the scales.

	Not at all Influential							Extremely Influential						
<i>A desire to give something back to the sport</i>	1	2	3	4	5	6	7							
<i>A lack of relevant skills for coaching</i>	1	2	3	4	5	6	7							
<i>A desire to help others to achieve</i>	1	2	3	4	5	6	7							
<i>A lack of time</i>	1	2	3	4	5	6	7							
<i>A desire for power</i>	1	2	3	4	5	6	7							
<i>Limited opportunities</i>	1	2	3	4	5	6	7							
<i>A desire to stay involved in sport</i>	1	2	3	4	5	6	7							
<i>No interest</i>	1	2	3	4	5	6	7							
<i>A fear of failure</i>	1	2	3	4	5	6	7							

Are there any other factors that influence your likelihood of being involved in coaching ?(Please List)

7. For each of the statements below, write down your level of agreement using the following scale: 1= Agree very much; 2 = Agree; 3 = Neither agree nor disagree; 4 = Disagree; 5 = Disagree very much.

1. At times I think I am no good at all,

1 2 3 4 5

2. I take a positive view of myself.

1 2 3 4 5

3. All in all, I am inclined to feel that I am a failure.

1 2 3 4 5

4. I wish I could have more respect for myself.

1 2 3 4 5

5. I am able to do things as well as most other people.

1 2 3 4 5

6. I feel that I am a person of worth, at least on a equal plane with others.

1 2 3 4 5

7. On the whole, I am satisfied with myself.

1 2 3 4 5

8. I feel I do not have much to be proud of.

1 2 3 4 5

9. I feel that I have a number of good of qualities

1 2 3 4 5

10. I certainly feel useless at times.

1 2 3 4 5

8. Is there any particular coach that is/has been a coaching role model for you?
(Please circle)

YES / NO

9. What is the sex of this role model? (**Please circle**)

Female / Male

10. Do you think females are under represented in hockey as coaches? (**Please circle**)

YES / NO

11. Do you think teams perform better with Male or Female coaches (**Please circle**)

Female / Male

APPENDIX E

Questionnaire Non players

2. Please indicate your sex (Please circle)

FEMALE / MALE

3. Please indicate on the scales below how typically feminine (associated with females) or masculine (associated with males) you consider each factor to be? Do this by circling the appropriate number for each factor on the scales. if you think a particular characteristic is strongly associated with females then circle a low number, if you think a characteristics is strongly associated with males circle a high number. If you don't think that a characteristic is associated with either males or females then circle the number 5.

	strongly feminine				neither			strongly masculine	
1. Good motivator	1	2	3	4	5	6	7	8	9
2. Goal oriented	1	2	3	4	5	6	7	8	9
3. Good leadership	1	2	3	4	5	6	7	8	9
4. Good communication	1	2	3	4	5	6	7	8	9
5. Commitment	1	2	3	4	5	6	7	8	9
6. Well organised	1	2	3	4	5	6	7	8	9
7. Good people skills	1	2	3	4	5	6	7	8	9
8. Intelligent	1	2	3	4	5	6	7	8	9
9. Enthusiastic	1	2	3	4	5	6	7	8	9
10. Open-minded	1	2	3	4	5	6	7	8	9
11. Passionate	1	2	3	4	5	6	7	8	9
12. Positive outlook	1	2	3	4	5	6	7	8	9
13. Friendly	1	2	3	4	5	6	7	8	9
14. Understanding	1	2	3	4	5	6	7	8	9
15. Analytical	1	2	3	4	5	6	7	8	9
16. Confident	1	2	3	4	5	6	7	8	9
17. Disciplinarian	1	2	3	4	5	6	7	8	9
18. Honest	1	2	3	4	5	6	7	8	9
19. Fair	1	2	3	4	5	6	7	8	9
20. Responsible	1	2	3	4	5	6	7	8	9
21. Selfish	1	2	3	4	5	6	7	8	9
22. Introverted	1	2	3	4	5	6	7	8	9
23. Arrogant	1	2	3	4	5	6	7	8	9
24. Weak minded	1	2	3	4	5	6	7	8	9
25. Power hungry	1	2	3	4	5	6	7	8	9
26. Self focused	1	2	3	4	5	6	7	8	9
27. Overly competitive	1	2	3	4	5	6	7	8	9

APPENDIX F

Information Sheet

You are invited to participate in the research project, "Coaching Field Hockey" by completing the following questionnaire. The aim of the project is to investigate various areas of coaching field hockey. The project is being carried out as the requirement for Msc thesis (majoring in Psychology) by Simon Bate under the supervision of Dr. Johnston of the University of Canterbury. Simon can be contacted at 03 3525853 or at fam.bate@ihug.co.nz. He will be pleased to discuss any concerns you may have about your participation in the project.

The questionnaire is anonymous, and you will not be identified as a participant without your consent. You may at any time withdraw your participation, including withdrawal of any information you have provided.

By completing the questionnaire, however, it will be understood that you have consented to participate in the project, and that you consent to the publication of the results of the project with the understanding that anonymity will be preserved.

APPENDIX G

Debriefing Sheet

Thank-you for participating in this research, your responses are invaluable. The primary focus of this research was to investigate the under representation of females in the coaching of field hockey. In addition the project aimed to determine, whether there is a difference in the likelihood of male and female hockey players taking up coaching and also what the characteristics associated with coach in field hockey are and whether these are stereotypically sex typed as masculine or feminine characteristics.

There were three separate groups of participants for this study, of which you were part of one. Group One comprised of New Zealand Hockey regional Development Managers. Group Two consisted of senior level hockey players in Canterbury and Group Three was made up of non hockey players from the University of Canterbury. All three groups had different questionnaires to complete.

It was hypothesized that the characteristics/qualities/traits associated with successful hockey coaching are stereotypically sex typed as masculine. In addition it is predicted that males are more likely than females to see themselves as future coaches.

Full results from this study will be available by the end of February. If you would like details of the findings please contact Simon on 352 5853 or on fam.bate@ihug.co.nz

Thank-you again for your participation.

APPENDIX H

MASCULINITY SCORES

	<u>Scores</u>
<u>Good Motivator</u>	5.42
<u>Goal Oriented</u>	5.34
<u>Good Leadership</u>	5.72
Good Communication	3.56
Committed	3.96
Well Organised	3.58
Good People Skills	3.92
Intelligence	4.72
Enthusiastic	4.71
Open Minded	3.94
Passionate	4.10
Positive Outlook	4.40
Friendly	4.25
Understanding	3.50
Analytical	6.34
Confident	6.14
Disciplinarian	7.22
Honest	4.48
Fair	4.52
Responsible	4.36
Selfish	6.02
Introverted	5.08
Arrogant	6.44
Weak Minded	4.36
Power Hungary	6.45
Self Focused	5.77
Overly Competitive	7.34

APPENDIX I.

MASCULINITY SCORES FOR CHARACTERISTICS ASSOCIATED WITH LACK OF SUCCESS IN COACHING.

	<u>Scores</u>
<u>Good Motivator</u>	4.58
<u>Goal Oriented</u>	4.66
<u>Good Leadership</u>	4.28
<u>Good Communication</u>	6.44
<u>Committed</u>	6.04
<u>Well Organised</u>	6.42
<u>Good People Skills</u>	6.08
<u>Intelligent</u>	5.28
<u>Enthusiastic</u>	5.29
<u>Open Minded</u>	6.06
<u>Passionate</u>	5.90
<u>Positive Outlook</u>	5.60
<u>Friendly</u>	5.75
<u>Understanding</u>	6.50
<u>Analytical</u>	3.66
<u>Confident</u>	3.86
<u>Disciplinarian</u>	2.78
<u>Honest</u>	5.52
<u>Fair</u>	5.48
<u>Responsible</u>	5.64
<u>Selfish</u>	3.98
<u>Introverted</u>	4.92
<u>Arrogant</u>	3.56
<u>Weak Minded</u>	5.64
<u>Power Hungary</u>	3.55
<u>Self Focused</u>	4.23
<u>Overly Competitive</u>	2.66